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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/050,434	01/15/2002	Paul Philip Brown	18-171	6515
22653	7590	07/28/2004	EXAMINER	
EDWARD W CALLAN NO. 705 PMB 452 3830 VALLEY CENTRE DRIVE SAN DIEGO, CA 92130			HEITBRINK, JILL LYNNE	
			ART UNIT	PAPER NUMBER
			1732	
DATE MAILED: 07/28/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/050,434	Applicant(s) BROWN ET AL.	
	Examiner Jill L. Heitbrink	Art Unit 1732	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 May 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-44 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1,7,8 and 15-28 is/are allowed.
- 6) ☒ Claim(s) 2-6, 9-14 and 29-44 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 2-6, 9-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

3. Claim 2, line 2 "(d)" should be changed to -(e)--.
4. Claim 3, line 2 "(d)" should be changed to -(e)--.
5. Claim 4, line 1 "(b)" should be changed to -(c)--.
6. Claim 5, line 3 "(d)" should be changed to -(e)--.
7. Claim 6, line 2 "(d)" should be changed to -(e)--.
8. Claim 9, line 5 "(d)" should be changed to -(e)--.
9. Claim 10, line 2 "(d)" should be changed to -(e)--.
10. Claim 11, line 6 "(d)" should be changed to -(e)--.
11. Claim 12, line 2 "(e)" should be changed to -(f)--.
12. Claim 13, line 6 "(d)" should be changed to -(e)--.
13. Claim 14, line 2 "(d)" should be changed to -(e)--.

Claim Rejections - 35 USC § 102

14. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

15. Claims 29-44 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Sorensen Pat. No. 4,959,005. See claim 1 of Sorensen '005. Sorensen discloses throttles can vary in the base-wall-section and directing the flow to the sidewall section as shown in Figures 2, 2A, 4 and 6. The sidewall section flow guides (28) extend from a plurality of throttled base-wall-section flow guides (throttle 20, 22). Sorensen discloses the self-aligning of the mold such that the alignment between the first and second mold parts varies along the direction of conduction of the material in the flow guide the self-aligning to open the throttles in the flow guide. Sorensen has radial flow guides (36) in the base-wall section that conduct material into concentric flow guides (40), also, concentric flow throttles are disclosed at col. 6, lines 1-3. Sorensen discloses the throttles being formed by recesses in the opposed first and second mold parts which form the brink and labrum.

16. As to claim 39, Sorensen discloses a mold for injection molding a plastic product having a base wall and a sidewall (col. 1, lines 39-42), comprising mold parts (10 and 12) for shaping a mold cavity for forming the product and a gate (26) from which fluid plastic material can be injected into a base-wall (30) section of the mold cavity. The base-wall section includes a plurality of flow guides (col. 5, lines 66-68 and col. 6, lines 1-3) for conducting the injected plastic material through the base-wall section and then into a sidewall section of the mold cavity. At least some of the base-wall-section flow guides include a sequence of variable-opening throttles (col. 5, lines 1-8) through which

Art Unit: 1732

said injected plastic material is conducted. The openings of the throttles can vary in response to variations in the thickness of a region of the sidewall section into which injected plastic material is conducted from a given at-least-one base-wall-section flow guide so that upon an increase in the thickness of the region the openings of the throttles in the given flow guide decrease and so that upon a decrease in the thickness of the region the openings of the throttles in the given flow guide increase (col. 5, lines 1-8), and the mold cavity further includes chambers (before labrum 22) adjacent the sidewall-section periphery of the base-wall section at a juncture of the plastic material directed into thin-wall cavity sectors of the base-wall section by flow guides adjacent the thin-wall cavity sectors for forming ridges (just before Labrum 22 shown in Figs. 2 and 4) on the inside of the base wall of the injection-molded product.

Allowable Subject Matter

17. Claims 1, 7, 8 and 15-28 are allowed.

18. Claims 2-6, 9-14 are would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

19. The prior art does not teach the throttles being shaped by partially opposing rows of recesses providing a chain of overlapping recesses forming a sequence of variable-opening throttles.

20. Applicant's arguments filed April 26, 2004 have been fully considered but they are not persuasive.

21. As to Claims 33 and 39, Applicant argues that Sorensen does not disclose the mold cavity including chambers adjacent the sidewall-section periphery of the base-wall section at a juncture of the plastic material directed into thin-wall cavity sectors of the base-wall section by flow guides adjacent the thin-wall cavity sectors for forming ridges on the inside of the base wall of the injection-molded product. However, Sorensen clearly discloses mold cavity including chambers, such as just before the labrum 22, adjacent the sidewall-section periphery (38) of the base-wall section at a juncture of the plastic material directed into thin-wall cavity sectors of the base-wall section by flow guides adjacent the thin-wall cavity sectors for forming ridges just before the labrum 22, in the region of the throttle, on the inside of the base wall of the injection-molded product.

22. As to Claims 29, 31, 34 and 40, Applicant argues that Sorensen does not disclose the mold part including a movable mold part that is disposed for protraction into and retraction from a base-wall-section flow guide for adjusting conduction within the flow guide. However, Sorensen clearly discloses protracting and retracting a movable mold part, see col. 4, lines 47-49 of Sorensen. This clearly adjusts the conduction of the injected plastic material through the flow guide since the shape of the cavity changes from the protraction or retraction of the mold part.

23. As to Claims 30 and 32, Applicant argues that Sorensen does not disclose the flow guide including a first segment and a second segment that is misaligned with the

Art Unit: 1732

first segment but that overlaps the first segment to enable conduction of fluid plastic material from the first segment to the second segment, and the movable mold part being disposed at the overlap to decrease the overlap when the movable mold part is protracted and to increase the overlap when the movable mold part is retracted.

However, Sorensen clearly discloses flow guide (throttle) including a first segment (30, as shown in Fig. 2) and a second segment (38) that is misaligned with the first segment but that overlaps the first segment to enable conduction of fluid plastic material from the first segment to the second segment (as shown by the arrows in Fig. 2), and the movable mold part (18) being disposed at the overlap to decrease the overlap when the movable mold part is protracted and to increase the overlap when the movable mold part is retracted, see col. 4, lines 47-49 and Fig. 2).

24. As to Claims 35 and 41, Applicant argues that Sorensen does not disclose an adjustable cavity mold part for shaping at least a portion of the base-wall section of the mold cavity, and the mold including means for initializing the portion of the adjustable cavity mold part to adjust the alignment between the adjustable cavity mold part and the core mold part. However, Sorensen (col. 1, lines 42-45) discloses the axial movement of the first mold part and the second mold part with respect to each other. Therefore, the axially movable cavity mold part is met by the movement of the mold parts with respect to each other. An adjustable cavity mold part (10) for shaping at least a portion of the base-wall section of the mold cavity, and the mold including means for initializing the portion of the adjustable cavity mold part to adjust the alignment between the adjustable cavity mold part and the core mold part is disclosed by Sorensen, see col. 1, lines 42-60

since the adjusting and aligning would occur during the opening and closing of the mold parts with respect to each other.

25. As to Claims 36 and 42, Applicant argues that Sorensen does not disclose the dynamically varying the position of the adjustable cavity mold part to adjust the alignment between the adjustable cavity mold part and the core mold part. However, the opening and closing of the mold parts with respect to each other is a dynamical varies the position of the cavity mold part and the core mold part.

26. As to Claims 37 and 43, Applicant argues that Sorensen does not disclose the mold parts including an adjustable cavity mold part for shaping at least a portion of the base-wall section of the mold cavity and the mold including means for dynamically varying the position of the adjustable cavity mold part to adjust the alignment between the adjustable cavity mold part and the core mold part. However, the opening and closing of the mold parts with respect to each other is a dynamical varies the position of the cavity mold part and the core mold part. An adjustable cavity mold part (10) for shaping at least a portion of the base-wall section of the mold cavity, and the mold including means for initializing the portion of the adjustable cavity mold part to adjust the alignment between the adjustable cavity mold part and the core mold part is disclosed by Sorensen, see col. 1, lines 42-60 since the adjusting and aligning would occur during the opening and closing of the mold parts with respect to each other.

27. As to Claims 38 and 44, Applicant argues that Sorensen does not disclose the shortest distance within the mold cavity in the direction of mold closure being larger than the elastic compression distance of the mold cavity when the mold is compressed by a

Art Unit: 1732

requisite clamping force. The elastic compression distance of the mold cavity when the mold is compressed by a clamping force being larger than the mold cavity shortest separation would cause this shortest separation to close under the clamping force and thus eliminate a portion of the cavity. Therefor, Sorensen would inherently have the shortest distance within the mold cavity in the direction of mold closure being larger than the elastic compression distance of the mold cavity when the mold is compressed by a requisite clamping force. Without this inherent design, the product produced in Sorensen would not have been the requisite desired product shape.


28. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jill L. Heitbrink whose telephone number is (571) 272-1199. The examiner can normally be reached on Monday-Friday 9 am -2 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Colaianni can be reached on (571) 272-1196. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Jill L. Heitbrink
Primary Examiner
Art Unit 1732

jlh